

REMARKS/ARGUMENTS

The claimed invention is directed to a resin composition of saponified ethylene-vinyl acetate for melt extrusion operations having significantly improved melt extrusion stability and provides an extruded product having significantly improved surface smoothness, drawdown resistance, interlayer adhesiveness and gas-barrier properties. Such significant improvement in performance properties is neither disclosed nor suggested in the cited references.

Applicants wish to thank Examiner Egwim for the courteous and helpful discussion of this application with Applicants' U.S. representative on July 9, 2008. At that time Applicants U.S. representative pointed to the significant improvement in melt extrusion properties according to the claimed invention as shown in Table 2 of the specification. Applicants' U.S. representative also suggested that the references could be divided into one group describing methods of polymer synthesis (primary references) and a second group (secondary references) directed to methods for preparing laminates and the improved laminates. The two groups are directed to differing aspects of technology and no motivation is found to combine the teaching of one group with that of the other. Moreover, the claimed invention is directed to a different aspect of technology than either reference group. Consequently, one of ordinary skill in the art would not be motivated to predict the combination of the two reference technologies would arrive at the claimed invention. The following reiterates and expands upon that discussion.

The rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over Satoh et al. (U.S. 4,485,225) and Moritani et al. (U.S. 5,744,547) in combination with any single one of Ninomiya et al. (U.S. 6,383,583), Akao (U.S. 4,871,613), Akao et al. (U.S.

5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. (JP 55012108) or Oozeki et al. (JP 57034148) is respectfully traversed.

Applicants respectfully submit that the cited combination of references neither suggests the significant improvement in performance properties of the claimed invention nor provides motivation to one of ordinary skill in the art which would lead to the claimed invention.

Applicants respectfully point to MPEP §2143 A. which states in pertinent part:

“The rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with **no change in their respective functions, and the combination yielded nothing more than predictable results** to one of ordinary skill in the art.” (Bold added)

Applicants have demonstrated in Table 2 (copy attached) significant improvement in Melt Extrusion Stability, Drawdown Resistance, Surface Smoothness and Gas Barrier Properties due to the composition according to the claimed invention. Melt extrusion stability is a measure of the stability of the viscosity of the resin melt in the extruder and the work load required to force the melt through the extruder. Drawdown resistance is a measure of the reduction in width or thickness of the extruded melt upon exiting the extruder die. Gas Barrier Properties is measured with regard to oxygen transmission rate and surface smoothness gauges the appearance and commercial acceptability of the extruded film. Each of these properties is directed to extrusion performance and the film produced by the extrusion process.

As indicated in Table 2, the Examples according to the claimed invention are generally 1-2 levels of quality better in surface smoothness, melt extrusion stability and drawdown resistance in comparison to the non-inventive examples. With regard to the

oxygen transmission rate, the film extruded according to the present invention is at least 50% less than the non-inventive samples.

Both Satoh and Moritani are directed to methods for the production of ethylene vinyl acetate copolymers and the resins formed. Both references are silent with regard to any description of a composition for melt extrusion or a melt extruded material having the significant improvements obtained according to the claimed invention.

The Office has recognized that the primary references are deficient with respect to disclosing or suggesting at least one second compound selected from the group consisting of higher fatty acid amides and fatty acid salts and a boron compound. Therefore, it has cited any of Ninomiya, Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020), Iwanami or Oozeki to show such components.

The secondary references describe co-extruded laminates, methods to improve the lamination process and improved laminations and are not related to the technologies of the primary references. Nowhere do any of these references disclose or suggest the significant improvement in properties such as melt extrusion stability, drawdown resistance and surface smoothness as described according to the claimed invention. Likewise, no where do any of these references suggest improvement in a synthesis method nor is there any motivation suggested which would lead one of ordinary skill in the art to the cited combination of technology. Therefore Applicants respectfully submit that the cited combination of references cannot render the claimed invention obvious as they cannot be combined with **no change in their respective functions, and the combination as shown by significant improvement in performance in Table 2, does yield more than results which would be predictable** to one of ordinary skill in the art.

Accordingly, withdrawal of the rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over Satoh et al. and Moritani et al. in combination with any single

one of Ninomiya et al., Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. or Oozeki et al. is respectfully requested.

The rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over Jenkins et al. (U.S. 4,649,186) and Moritani et al. in combination with any single one of Ninomiya et al., Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. or Oozeki et al. is respectfully traversed.

Jenkins describes a process for producing copolymers of ethylene and vinyl acetate in a continuous stirred-tank reactor in which the ethylene and vinyl acetate are premixed and the reactor is continuously purged. Therefore, Applicants respectfully submit that Jenkins, like Satoh and Moritani, describes technology different from that of the claimed invention. Jenkins neither discloses, suggests or provides motivation to one of ordinary skill in the art which would lead to the significant improvement in melt extrusion performance obtained with the claimed invention.

In this rejection, the Office recognized that the primary reference combination is deficient with respect to disclosing or suggesting at least one second compound selected from the group consisting of higher fatty acid amides and fatty acid salts and a boron compound. Therefore, it has again cited any of Ninomiya, Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020), Iwanami or Oozeki to show such components.

As discussed above, Applicants respectfully submit that these secondary references describe co-extruded laminates and are not related to the technologies of the primary references. Nowhere do any of these references disclose or suggest the significant improvement in properties such as melt extrusion stability, drawdown resistance and surface smoothness as described according to the claimed invention. Therefore Applicants respectfully submit that the cited combination of references cannot render the claimed invention obvious as they cannot be combined with **no change in their respective functions**,

and the combination as shown by significant improvement in performance in Table 2, does yield more than results which would be predictable to one of ordinary skill in the art.

In view of the above, Applicants respectfully request withdrawal of the rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over Jenkins et al. and Moritani et al. in combination with any single one of Ninomiya et al., Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. or Oozeki et al.

The rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over JP 62128754 and Moritani et al. in combination with any single one of Ninomiya et al., Akao (U.S. 4,871,613), Akao et al. (U.S. 5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. or Oozeki et al. is respectfully traversed.

JP 62128754 in the Abstract, is directed to a method of preparing an ethylene vinyl acetate copolymer. The Office has combined this reference with the same set of secondary reference as in the previous rejections.

Applicants respectfully submit that this reference also describes technology different from that of the claimed invention. JP 62128754 neither discloses, suggests or provides motivation to one of ordinary skill in the art which would lead to the significant improvement in melt extrusion performance obtained with the claimed invention. Accordingly, Applicants respectfully submit that the cited combination of references cannot render the claimed invention obvious as they cannot be combined with **no change in their respective functions, and the combination as shown by significant improvement in performance in Table 2, does yield more than results which would be predictable** to one of ordinary skill in the art.

In view of the above, Applicants respectfully request withdrawal of the rejection of Claims 1-4, 6, 7, 9-11, 13-15 and 26 under 35 U.S.C. 103(a) over JP 62128754 and Moritani et al. in combination with any single one of Ninomiya et al., Akao (U.S. 4,871,613), Akao et

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al. (U.S. 5,110,643 or 5,804,020) and further in view of any single one of Iwanami et al. or Oozeki et al.

Applicants respectfully submit that the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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